

AMENDMENTS TO THE SPECIFICATION

Please amend the Abstract section of the specification as rewritten in amendment format.

A flowchart-based programming and control system includes a computer with a processor, memory, and display. A device is connected to the computer and is associated with a process. A flowcharting module ~~run by the computer~~ generates and edits flowchart source code that includes flowchart blocks and that contains logic for operating the device ~~to further the process~~. First and second flowchart blocks assign an operational state of the process. A reason code module associated with the flowcharting module assigns first and second reason codes to the ~~process by the~~ first and second flowchart blocks. The flowchart module compiles the flowchart source code into flowchart object code. A flowchart run-time engine module ~~associated with the computer~~ executes the flowchart object code to control the process. The flowchart object code generates the first and second reason codes during execution of the first and second flowchart blocks ~~in the flowchart object code~~. A performance analysis module and a charting module record and graphically represent the operational state of the process over time. ~~The performance analysis module can be updated periodically or in real time. The graphs, charts and data provided by the performance analysis module can also be accessed remotely using a browser.~~